

Appln No. 10/542,392
Amdt date July 30, 2010
Reply to Office action of June 7, 2010

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A plant-cultivating system comprising:
a container having a shape capable of receiving a plant to be cultivated;
an aqueous fertilizer solution accommodated in said container; and
a ~~non-porous~~ hydrophilic film having a water impermeability of 10 cm or more in terms of water pressure resistance as measured in accordance with JIS (Japanese Industrial Standards) L1092 (method B), said hydrophilic film for cultivating a plant thereon, ~~said non-porous hydrophilic film~~ and being placed on said aqueous fertilizer solution in a manner such that the lower surface of said ~~non-porous~~ hydrophilic film is in contact with the surface of the aqueous fertilizer solution, and said aqueous fertilizer solution affecting the growth of the plant.
2. (Currently Amended) A plant-cultivating system according to claim 1, wherein the film shows an electrical conductivity (EC) difference of 4.5 dS/m or less as determined by a method comprising contacting water with a saline solution having a salt concentration of 0.5 % by weight through said ~~nonporous~~ hydrophilic film, measuring respective electrical conductivities of the water and the saline solution 4 days (96 hours) after the start of the contact, and calculating the difference in electrical conductivity between the water and the saline solution.
3. (Currently Amended) A plant-cultivating system according to claim 1, wherein the film shows a Brix concentration (%) difference of 4 % or less as determined by a method comprising contacting water with a glucose solution having a glucose concentration of 5 % by weight through said ~~nonporous~~ hydrophilic film, measuring respective Brix concentrations (%) of the water and the glucose solution 3 days (72 hours) after the start of the contact, and calculating the difference in Brix concentration (%) between the water and the glucose solution.

4. (Currently Amended) A plant-cultivating system according to claim 1, wherein the film shows a peeling strength of 10 g or more relative to roots of a plant in terms of a strength needed to peel off the roots of the plant from said film as measured by a method comprising cultivating a plant on the ~~non-porous~~ hydrophilic film in said plant-cultivating system, and peeling off roots of the plant from said film 35 days after the start of cultivation of the plant on said film to measure the strength (g) needed for the peeling.

5-6. (Cancelled)

7. (Currently Amended) A plant-cultivating method, comprising:
(1) providing a plant-cultivating system comprising:
a container having a shape capable of receiving a plant to be cultivated;
an aqueous fertilizer solution accommodated in said container; and
a ~~non-porous~~ hydrophilic film having a water impermeability of 10 cm or more in terms of water pressure resistance as measured in accordance with JIS (Japanese Industrial Standards) L1092 (method B), said hydrophilic film placed on said aqueous fertilizer solution in a manner such that the lower surface of said ~~non-porous~~ hydrophilic film is in contact with the surface of said aqueous fertilizer solution;
(2) disposing a plant on said ~~non-porous~~ hydrophilic film in the system; and
(3) allowing the aqueous fertilizer solution to affect the plant growth through the ~~non-porous~~ hydrophilic film; and
(4) allowing roots of the plant to grow on and integrate with the ~~non-porous~~ hydrophilic film, thereby cultivating the plant on said ~~non-porous~~ hydrophilic film with an aqueous fertilizer solution.

8. (Currently Amended) A plant-cultivating method according to claim 7, wherein said plant cultivation system further comprises a plant-retaining support disposed on said ~~non-porous~~ hydrophilic film.

Appln No. 10/542,392
Amdt date July 30, 2010
Reply to Office action of June 7, 2010

9. (Cancelled)

10. (Currently Amended) A plant-cultivating system according to claim 1, wherein the ~~non-porous~~ hydrophilic film is made of a material selected from the group consisting of polyvinyl alcohol (PVA), cellophane, cellulose acetate, cellulose nitrate, ethyl cellulose, and polyester.

11. (Currently Amended) A plant-cultivating system according to claim 1, wherein the ~~non-porous~~ hydrophilic film has a thickness of 5-200 μm .

12. (Currently Amended) A plant-cultivating system according to claim 1, wherein the ~~non-porous~~ hydrophilic film is laminated on a porous material.

13. (Previously presented) A plant-cultivating system according to claim 12, wherein the porous material is an unwoven fabric or a sponge having communicating pores, wherein the unwoven fabric or sponge is made of a material selected from the group consisting of polyethylene, polypropylene, polyethylene terephthalate, polyamide, polyvinyl alcohol, and cellulose.

14-15. (Cancelled)